

# DPS | Montgomery County Department of Permitting Services



255 Rockville Pike, 2<sup>nd</sup> floor Rockville, MD 20850-4166 Phone: 311 in Montgomery County or (240-777-0311) Fax: (240-777-6262) http://www.montgomerycountymd.gov/permittingservices

# **COMMERCIAL GREEN BUILDING APPLICATION**

Building AP#(s)	U&O#
PROJECT INFORMATION - Applies only to new	construction/additions of 5000gsf or greater (Check all that apply)
New Construction Addition Non-F	Residential Residential R-2/R-4 Residential R-1 Mixed Use Shell
Size - Gross ft² (gsf): ★If under	5000gsf – Not Applicable [ (If checked, complete only this project Information Section)
Project Address:	Project Name:
APPLICATION INFORMATION – Complete for A	LL applicable projects
Project Owner:A	ddress:
Phone: Mobile:	Email:
Primary Contact/Applicant:	Address:
	Email:
	Charge (RDPRC):
RDPRC Address:	
	Email:
PATH OF COMPLIANCE - Complete for ALL appl	
R-2/R-4 <5 stories: Compliance with ICC-700/Ne	GBS (Silver Energy Performance Level) is required
R-2/R-4 and Mixed Use ≥5 stories: ☐ IgCC ☐	ICC-700/NGBS ASHRAE 189.1
R-1, R-1/Mixed -Use, and Non-Residential:	IgCC ASHRAE 189.1 LEED (Silver) USGBC Reg#
under 5000ft <sup>2</sup> check the "Not Applicable" box and complet	The <i>IgCC</i> (Amended) applies only to New Construction and Addition projects 5000ft <sup>2</sup> or greater. For project only the <b>Project Information Section</b> and include with your Building Permit Application. For all applicable ontact information and complete the application, submit with your Building Permit Application.
If the primary contact is other than the Owner or Registered Name, address, phone(s) and email.	Design Professional in Responsible Charge (RDPRC) provide complete primary contact information including
Identify the RDPRC and provide complete contact informat	ion including: Name, address, phone(s) and email.
Commercial R-2 and R-4 projects ≥5000gsf <u>and under 5 sto</u> Performance level.	ries are required to comply with the ICC-700/National Green Building Standard (NGBS) at the Silver Energy
R-2 & R-4 portions of Mixed-Use buildings <i>may</i> comply with entire building may comply with <i>IgCC</i> or <i>ASHRAE 189.1</i> .	h ICC-700/NGBS; the remainder (non-residential) shall comply with the provisions of the $IgCC-$ or – the
R-1, Non-residential and R-1/Mixed-Use projects ≥5000gsf	may select: IgCC, ASHRAE 189.1, or LEED Silver. Provide USGBC/GBCI Project Registration Number.
Incomplete applications will not be accepted.	
Applicant's Signature	Date Print Name



## **GUIDELINES FOR COMPLETING 2012 - IgCC Commercial Code Analysis Checklist and Permit Application**

Project Information — Completion of this section is required on both the Permit Application and Code Analysis

- a. The IgCC Code Analysis Checklist must accompany all Commercial Permit Applications for New Construction and Additions. Complete Project Information Section fully; Provide Project Name if applicable. Indicate gross square footage of proposed building. If the project is ≥5000gsf you must complete the entire checklist. NOTE: For projects under 5000gsf, complete only the Project Information section, check the "NOT APPLICABLE" box and submit the form with your permit application.
- b. For all new construction and addition projects ≥5000gsf, A preliminary consultation meeting with DPS is required to discuss compliance path options and requirements. One additional design consultation may be requested by the applicant prior to applying for a building permit.
- c. Provide project Owner's name, address and phone numbers.
- d. Provide Applicant/Primary Contact information if other than the RDPRC.
- e. The Registered Design Professional in Responsible Charge (RDPRC) is responsible for reviewing and coordinating certain aspects of the project for compatibility with the building design including documents prepared by others, deferred submittal documents and phased submittal documents.

  Provide the RDPRC name and complete contact information. Whenever the RDPRC is changed or is unable to continue to perform the required duties, the owner must notify DPS in writing of such change. (Only applies to covered projects following IgCC or ASHRAE 189.1 Compliance Path)
- f. Provide name(s) of the Commissioning Agency (If other than the RDPRC) along with contact information. Complete the Commissioning Checklist and include with Permit Application. (Only applies to covered projects following IgCC or ASHRAE 189.1 Compliance Path)

# **Compliance Path**

- a. Commercial group R-2 and R-4 projects ≥5000gsf <u>and under 5 stories</u> are required to comply with the \*\*ICC-700/National Green Building Standard (NGBS) at the Silver Energy Performance level. <u>Attach NGBS Verifier information along with NGBS Scorecard.</u> Note: Projects are required to register under NGBS-2012 or NGBS-2015. <u>Registered Projects must have final approval from the NGBS Verifier prior to DPS Use and Occupancy Approval.</u>
- b. R-2 & R-4 portions of mixed-use buildings *may* comply with \*\*ICC-700/NGBS; the remainder (non-residential) shall comply with the provisions of the IgCC or the entire building may comply with the IgCC or ASHRAE 189.1. When selecting ASHRAE 189.1, it must be applied in its entirety.
- c. Group R1 mixed-use projects and all other non-residential projects ≥5000gsf may select: IgCC, ASHRAE 189.1 or LEED Silver with not less than 8 points under Option 1 (Whole Building Energy Simulation) or, not less than 5 points under Option 2 (Prescriptive Compliance) of the *Energy and Atmosphere Credit* − *Optimize Energy Performance*. The \*LEED Alternate Compliance Path only applies to: New Construction, Core & Shell, Schools, Retail, Data Centers, Warehouse and Distribution Centers, Hospitality and Healthcare. Provide proof of USGBC registration. *Currently adopted Energy Code applies*.

## Project Electives – Mandatory Requirements/IgCC Compliance Path, Performance or Prescriptive

a. Projects 5000-9999gsf must select not less than 2 Project Electives; Projects 10,000-19,999gsf must select not less than 3 Project Electives; Projects 20,000gsf or more must select not less than 4 Project Electives. Selected Project Electives must exceed the minimum requirements of all Codes, Standards and Regulations adopted and enforced by DPS or other Federal, State or Local Agencies. Identify which Electives have been selected and include all documentation in support of your chosen electives. Note: Not applicable to projects pursuing ASHRAE 189.1, NGBS or LEED Silver certifications.

## Site Development and Land Use - Mandatory Requirements/IgCC Compliance Path, Performance or Prescriptive

- a. Provide Building Site Waste Management Plan indicating how not less than 75% site clearing waste diversion from landfills in accordance with Section C406 will be accomplished.
- b. Show in drawings and specifications how compliance with Section 408 will be met; indicate sheet number(s).

#### Material Resource and Conservation - Mandatory Requirements/IgCC Compliance Path, Performance or Prescriptive

- a. Section 502.1.1 A final report from the RDPRC is required prior to final building approval. This checklist item shall be included in the report affirming compliance with this requirement. Subject to DPS field inspections.
- b. Section 502.1.2 A final report from the RDPRC is required prior to final building approval. This checklist item shall be included in the report affirming compliance with this requirement. Subject to DPS field inspections.
- c. Section 503.1 Include waste management plan with building permit application.
- d. Section 507.1 A final report from the RDPRC is required prior to final building approval. This checklist item shall be included in the report affirming compliance with this requirement. Subject to DPS field inspections.

# Energy Conservation/CO2e Emission Reduction - Section 603 are Mandatory Requirements/IgCC Compliance Path, Performance or Prescriptive

- a. *Performance-based Compliance* requires zEPI of 50 or less *(eGRID sub-region RFCE)*. The RDPRC is responsible for the Building Energy Simulation and providing the appropriate documentation with Plan Submittal. If for some reason the owner designates a substitute RDP, the owner must notify DPS in writing. The path of compliance shall reflect the path of compliance selected for IECC. *Mandatory provisions apply*.
- b. Prescriptive-based Compliance. The path of compliance shall reflect the path of compliance selected for IECC. Mandatory provisions apply.
- c. Section 603 Metering, Monitoring and Reporting; Check all that apply. (Mandatory under IgCC Compliance Path)
- d. Section 603.1.1 Buildings with tenants Metering shall be collected for the entire building and for each tenant separately.
- e. Section 603.2 Distribution systems shall be isolated and identified to supply only one type of energy used and shall be designed to provide adequate space for the installation of metering and data collection devices.
- f. Section 603.2 EXCEPTION Allows measurement of individual types of energy use through sub-metering as allowed in Section 603.4.
- g. Section 603.3 Energy Type Sub-metering can be used under the *EXCEPTION* found in Section 603.2 providing the ability to determine peak demand with reporting to a data acquisition system. Check the appropriate box and provide specifications and details in plan submittal.

h. Section 603.5 – Requires meters and sub-meters to be connected to a data acquisition system capable of collecting and storing data for not less than 36 months and transferring the data to a real-time display as noted in Section 603.6. Section 603.5.1 requires data acquisition and transfer of CO₂e emissions to real-time display as noted in Section 603.6.

## **Building Envelope Systems – Prescriptive-based Compliance**

- a. Check "Not Applicable" if Performance Compliance, ASHRAE 189.1, NGBS or LEED compliance path is selected.
- b. Provide documentation and specifications on insulation values, shading of fenestration, continuous air barrier (materials and methods)
- c. Acknowledge that air tightness (Blower Door) testing is required and results shall be provided to DPS prior to U&O approval (Include in Cx Plan). May be included in preliminary commissioning report.

## **Building Mechanical Systems – Prescriptive-based Compliance**

- a. Check "Not Applicable" if Performance Path Compliance, ASHRAE 189.1, NGBS or LEED compliance path is selected.
- b. Section 606.2.1 Equipment covered by Federal Efficiency Standards shall comply with the requirements of the IECC.
- c. Section 606.2.2 Equipment not covered by Federal Efficiency Standards shall comply with the requirements in Table 606.2.2.1.
- d. Section 606.3 Ductwork shall be sealed, insulated and tested. Provide insulation and sealing materials and methods in plans/specifications. Testing report is to be provided to DPS prior to building final inspections approval (Include in Cx Plan). May be included in preliminary commissioning report.
- e. Section 606.5 Economizers shall comply with IECC requirements.
- f. Section 606.6-606.6.2 Variable Air Volume fan control (VAV). If applicable, provide details on motor (hp) and controls
- g. Section 606.7 Kitchen Exhaust Systems. When applicable, shall be designed in accordance with IMC requirements. Provide details of compliance including calculations for airflow rates including exhaust air, transfer air and energy recovery devices.
- h. Section 606.8 Laboratory Exhaust Systems. Provide details including calculations for exhaust rates, make-up air percentages and heat recovery devices, as applicable.
- i. Section 606.9 HVAC Controls in Group R-1 Sleeping Rooms. If applicable, provide controls details.

# **Building Service Water Heating – Prescriptive-based Compliance**

- a. Check "Not Applicable" if Performance Path Compliance, ASHRAE 189.1, NGBS or LEED compliance path is selected.
- b. Section 607.2.1 If applicable, check that equipment complies with IECC requirements and provide location of details/specifications in plan drawings.
- c. Section 607.6 Service Hot Water Piping Insulation. Provide types of insulation materials and R-Values.
- d. Section 607.6.1 Buried Piping Insulation. If applicable, provide details of insulating materials and R-Values.

## Electrical Power and Lighting – Prescriptive-based Compliance

- a. Check "Not Applicable" if Performance Path Compliance, ASHRAE 189.1, NGBS or LEED compliance path is selected.
- b. Section 608.1.1-608.1.3 Automatic Lighting Controls. Shall be compliant with IECC requirements.
- c. Section 608.2-608.4 Lighting Controls specific to IgCC. Identify in plan layout and schedules, provide narrative if necessary to show compliance.
- d. Section 608.7 Fuel Gas Lighting Systems. Fuel gas to be included in Lighting Power Calculations through Conversion Equation. Show calculations in plans

- e. Section 608.8 Electrical Systems Efficiencies. Prescriptive compliance shall follow the provisions of this section.
- f. Section 608.10-608.11 Verification of lamps, ballasts and controls. Included in Cx plan. To be provided in Cx report prior to occupancy approval.

## **Energy Systems Commissioning and Completion – Mandatory**

- a. Section 611.1 Mechanical Systems Commissioning and Completion Requirements. Within 60 days following mechanical final inspection approval, the RDPRC shall provide evidence of completion, testing, balancing, operation, and controls. This requirement shall be outlined in the Commissioning Plan.
- b. Section 611.1.4 Preliminary Cx Report. Details shall be provided in the Cx Plan, including acceptance and certification provisions.
- c. Section 611.1.5-611.1.5.5 Completion Requirements, final Cx Report and Post-occupancy Commissioning shall be detailed in the Cx Plan.
- d. Section 611.3-611.4.2 Lighting/Electrical Systems and Building Envelope Cx and Completion. Details of how compliance shall be met must be included in the Cx plan.

## **Indoor Environmental Quality and Comfort – Mandatory**

- a. Section 802.2-802.3 Air Handling System Access and Filtration. Provide details in Plans and Specifications.
- b. Section 803 HVAC Systems. Provide detailed narrative of how the HVAC system shall be protected during construction. Note: Thermal Environmental Conditions for Human Occupancy shall be designed in accordance with ASHRAE 55, Sections 6.1 and 6.2. Provide on plan details how indoor pollutant sources will be isolated from general habitable areas. Provide details of Air-conditioning filtration and design per the provisions of ASHRAE 52.2.
- c. Section 805 Prohibited Materials. Provide statement of compliance.

## Commissioning, Operation and Maintenance - Mandatory

- a. Section 902 Approved Agency. Identify in the Cx Plan the Cx Agent, providing full details of the Agency or Individuals performing the Cx duties.
- b. Section 903 Commissioning. Include the *completed* Schedule of Periodic Commissioning Checklist in the Commissioning Plan acknowledging the commissioning requirements.
- c. Section 904 Building Operations and Maintenance. Acknowledge recording and reporting requirements along with a statement of intended compliance with the provisions of this section. Note: Pre-occupancy Cx report submittal to the building owner is required prior to occupancy approval.

# **Existing Buildings - Mandatory**

a. Section 1006.1 – De-construction and Demolition Material and Waste Management Plan. Provide details of how not less than 50% of demolition materials will be diverted from landfills. This can be included and specified in the Waste Management Plan in accordance with Section 503.1. This applies to any project requiring a Land Development permit. (≥5000ft²)



2012 - IgCC Code Analysis Checklist										
	Project Information (All Line Items Shall be Addressed)									
Project Name:				Application #						
Size - Gross ft <sup>2</sup> :	Under 50	000 gross ft <sup>2</sup>								
Application Type: New	Addition 🗌	Non-Residential	Residential - R-2/R-4	Residential R-1	Mixed Use	Shell	Check all that apply			
Project Address:										
Owner:		Address:			Daytii	me Phone:				
Applicant/Primary Contact: _		Address: _			Dayti	me Phone:				
Registered Design Professional in Responsible Charge (RDPRC): Phone:										
RDPRC Address:				Email:						
Commissioning Agency (If oth documentation demonstrating				ties of the Cx activities f	or each agency. Inc	luded 🗌	Provide separate			
COMPLIANCE PATH										
Residential R-2 and R-4 Less T		•	,	· <u> </u>		rmation and NGB	S Scorecard			
Residential ≥5 Stories and Mi	xed Use: IgCC	**ICC-700/NGBS (Silv	rer Minimum)	189.1	Silver) 🗌					
Non-Residential: IgCC	ASHRAE 189.1 🗌	*LEED V4 (Silver)	USGBC/LEED Registration	n #:						
*PROJECT ELECTIVES - N	ot Applicable fo	r Projects Following A	SHRAE 189.1, ICC-700 Silve	er or LEED V4 Silver C	ertification Comp	liance Paths				
5000-9999 ft <sup>2</sup> Requires M	in of 2 Project Elec	ctives : Appendix A Elect	ive Appendix A Elec	ctive						
☐ 10000-19999 ft <sup>2</sup> Requires	Min of 3 Project El	<i>ectives</i> : Appendix A Ele	ctive Appendix A El	ective Appen	dix A Elective					
20000 ft <sup>2</sup> + Requires Min o	of 4 Project Elective	es : Appendix A Elective	Appendix A Elective	e Appendix A	Elective	Appendix A Electi	ve			
Appropriate Documentation i	in Support of Selec	ted Project Electives Mi	ust be Included: Yes	Plan Sheet Nun	nbers:					
Selected Project Electives Mus	t Exceed Minimum	Requirements of all Cod	des, Standards and Regulation	s Adopted and Enforced	l by DPS or Other Fe	deral, State or Lo	cal Agencies			

★ - Indicates Mandatory Requirement								
CHAPTER 4 - SITE DEVELOPMENT AND LAND USE ★	Comments	Sheet #	Reviewed By	Inspected By				
Section 406.1 - Building Site Waste Management Plan - Minimum 75% Diverted 🔲			DPS	RDPRC				
Section 408 - Not less than 40% of the site hardscape shall be provided with one or any combination of options 408.2.1 through 408.2.4 Select all that apply			_	_				
408.2.1 Hardscape Materials 408.2.2 Shading by Structures 408.2.3 Shading by Trees 408.2.4 Pervious/Permeable Pavement			DPS	DPS				
CHAPTER 5 - MATERIAL RESOURCE CONSERVATION AND EFFICIENCY ★	Comments	Sheet #	Reviewed By	Inspected By				
Section 502.1.1 Storage and handling of construction material per manufacturer's instruction			RDPRC	RDPRC				
Section 502.1.2 Construction Phase Moisture Control			RDPRC	RDPRC				
Section 503.1 Construction Waste Management Plan Minimum 50% diverted			RDPRC/DPS	RDPRC				
Section 507.1 Building Envelope Moisture Control Measures			DPS	RDPRC				
CHAPTER 6 - ENERGY CONSERVATION/ CO <sub>2</sub> e EMISSION REDUCTION Select compliance path	Comments	Sheet #	Reviewed By	Inspected By				
Performance-based Compliance Sections: 602, 603, and 611 zEPI 50 or less			DPS	RDPRC				
Prescriptive-based Compliance Sections: 603, 605, 606, 607, 608, and 611			DPS	RDPRC				
Section 603 Energy Metering, Monitoring and Reporting 🛨 Check applicable provisions	Comments	Sheet #	Reviewed By	Inspected By				
Section 603.1.1 Building with Tenants								
Section 603.2 Energy Distribution Design/Load Isolation Sub-meter Exception								
Section 603.2.1 HVAC system total energy use								
Section 603.2.2 Lighting system total energy use			DPS	DPS				
Section 603.2.3 Plug loads								
Section 603.2.4 Process loads								
Section 603.2.5 Energy used for building operations/other misc. loads								
Section 603.3 Energy-type metering		•						
603.3.1 Gaseous Fuel								
603.3.2 Liquid Fuel 🗌								
603.3.3 Solid Fuel								
603.3.4 Electric Power			DPS	DPS				
603.3.5 District Heating and Cooling								
603.3.6 Combined Heat and Power								

Renewable and Waste Energy				
603.3.7.1 Solar Electric				
603.3.7.2 Solar Thermal			DPS	DPS
603.3.7.3 Waste Heat				
603.3.7.4 Wind Power				
603.3.7.5 Other Renewable				
Section 603.4 Energy Load Type Sub-metering for buildings <b>over</b> 25,000 gsf				
Section 603.4.1 Energy Load Type Sub-metering for buildings less than 25,000 gsf			DPS	DPS
Section 603.5 Minimum Energy Measurement and Verification				
Section 603.5.1 Annual Emissions				
Section 603.6 Energy Display 🗌				
Section 605 Building Envelope Systems - (Prescriptive-based Compliance Only)	Comments	Sheet #	Reviewed By	Inspected By
Section 605.1.1 Thermal envelope exceeds IECC by at least 10%			DPS	RDPRC
Section 605.1.1.1 Permanent Shading Devices for Fenestration			DPS	RDPRC/DPS
Section 605.1.2-605.1.2.1 Air Leakage/Continuous Air Barrier			DPS	RDPRC
Section 605.1.2.2 Testing Requirement - Shall be Tested Prior to Occupancy			RDPRC	RDPRC
Section 606 Building Mechanical Systems - (Prescriptive-based Compliance Only)	Comments	Sheet #	Reviewed By	Inspected By
Section 602.2.1 Equipment Covered by Federal Standards per IECC			DPS	RDPRC
Section 606.2 Equipment Not Covered by Federal Standards - Table 602.2.2.1			RDPRC/DPS	RDPRC
Section 606.3.1 Ductwork Sealed per IECC - To be Tested 🗌			DPS	RDPRC
Section 606.6 VAV Fan Control Not Applicable			DPS	RDPRC/DPS
Section 606.7 Kitchen Exhaust Systems Not Applicable			DPS	RDPRC/DPS
Section 606.8 Laboratory Exhaust Systems Not Applicable			DPS	RDPRC/DPS
Section 606.9 HVAC Controls in R-1 Sleeping Rooms Not Applicable			DPS	RDPRC/DPS
Section 607 Building Service Water Heating - (Prescriptive-based Compliance Only)	Comments	Sheet #	Reviewed By	Inspected By
Section 607.2.1 Equipment Performance Complies with IECC Not Applicable			RDPRC/DPS	RDPRC/DPS
Section 607.6 Service Hot water Piping Insulation			DPS	RDPRC
Section 607.6.1 Buried Piping Insulation Not Applicable			DPS	RDPRC
Section 608 Electrical Power/Lighting - (Prescriptive-based Compliance Only)	Comments	Sheet #	Reviewed By	Inspected By
Section 608.1.1 Occupant Sensor Controls			DPS	RDPRC/DPS
Section 608.1.2 Time Switch Controls			DPS	RDPRC/DPS

Section 608.1.3 Automatic Daylight Controls			DPS	RDPRC/DPS
Section 608.3 Interior Light Reduction Controls			DPS	RDPRC/DPS
Section 608.4.1 Exterior Light Reduction Controls			DPS	RDPRC/DPS
Section 608.4.2 Exterior Lighting and Signage Shutoff			DPS	RDPRC/DPS
Section 608.7 Fuel Gas Lighting Systems			DPS	RDPRC
Section 608.8.1.1 Transformer Efficiency			DPS	RDPRC
Section 608.8.1.2 Voltage Drop in Feeders			DPS	RDPRC
Section 608.8.1.3 Voltage Drop in Branch Circuits 🗌			DPS	RDPRC
Section 608.9 Exterior Lighting Complies with IECC Sections. C405.6.1 and C405.6.2			DPS	RDPRC
Section 608.10 Verification of Lamps and Ballasts			DPS	RDPRC/DPS
Section 608.11 Verification of Lighting Controls			DPS	RDPRC/DPS
Section 611 Energy Systems Commissioning (Cx) and Completion 🜟	Comments	Sheet #	Reviewed By	Inspected By
Section 611.1.1-611.1.3.3 and 611.1.5.5 (Post Occupancy CX) Inclusive in Cx Plan			DPS	RDPRC
Section 611.4-611.4.3 Acknowledge in Plan Documents, Preliminary Mechanical Systems Cx Report/Certification Due Prior to Building Final Approval			DPS	DPS
Section 611.1.5-611.1.5.5 and 611.2 Acknowledge in Plan Documents, Completion Requirements to be Delivered to Building Owner Within 90 Days of Occupancy Approval			DPS	RDPRC/DPS
Section 611.3-611.3.5 Acknowledge in Plan Documents, Lighting/Electrical Systems Cx/Completion Requirements to be Delivered to Building Owner Prior to Occupancy			DPS	RDPRC/DPS
Section 611.4-611.4.2 Acknowledge in Plan Documents, Envelope Cx/Completion Requirements to be Delivered to Building Owner Prior to Occupancy			DPS	RDPRC/DPS
Chapter 8 - Indoor Environmental Quality and Comfort 🖈	Comments	Sheet #	Reviewed By	Inspected By
Section 802.2 Air-handling System Access			RDPRC/DPS	RDPRC/DPS
Section 802.3 Air-handling System Filters			RDPRC/DPS	RDPRC
Section 803 HVAC Systems Duct Openings Protection 📋			RDPRC/DPS	RDPRC
Section 803.1.2 Indoor Air Quality During Construction - Ventilation			RDPRC/DPS	RDPRC
Section 803.1.3 Construction Phase Space Conditioning			RDPRC/DPS	RDPRC
Section 803.2 Compliance with ASHRAE 55 Sections 6.1 and 6.2			RDPRC/DPS	RDPRC
Section 803.4.1 Printer, Copier, Janitorial Room Isolation			DPS	RDPRC/DPS
Section 803.5 MERV 11 or Higher Filters			RDPRC/DPS	RDPRC
Section 805.1 Prohibited Materials - Asbestos/Urea-formaldehyde 🗌			RDPRC/DPS	RDPRC

Chapter 9 - Commissioning (Cx), Operation and Maintenance 🔺		Comments	Sheet #	Reviewed By	Inspected By
Section 902 Approved Cx Agency Independent from Construction Contractor				DPS	DPS
Section/Table 903.1 Schedule of Periodic Commissioning Included in Cx Plan				DPS	RDPRC
Section 903.1.1-903.1.2 Acknowledge in Plan Documents, Pre-Occupancy and Pos Requirements $\  \  \  \  \  \  \  \  \  \  \  \  \ $	t-Occupancy Reporting			DPS	RDPRC/DPS
Section 904 Acknowledge in Plan Documents, Building Operations and Maintenan Section be submitted to Building Owner Prior to Occupancy Approval	ce Documents Required in this			DPS	RDPRC/DPS
Chapter 10 - Existing Buildings ★		Comments	Sheet #	Reviewed By	Inspected By
Section 1006.1 De-Construction and Demolition Material Waste Management Plan	n 🗌			RDPRC/DPS	RDPRC
Project Electives - (In-fill chosen electives, include Code Section and	d Summary)	Comments	Sheet #	Reviewed By	Inspected By
Section				RDPRC/DPS	RDPRC/DPS
Section				RDPRC/DPS	RDPRC/DPS
Section				RDPRC/DPS	RDPRC/DPS
Section				RDPRC/DPS	RDPRC/DPS
Section				RDPRC/DPS	RDPRC/DPS
Section				RDPRC/DPS	RDPRC/DPS
Section				RDPRC/DPS	RDPRC/DPS
Section				RDPRC/DPS	RDPRC/DPS
				Date	
Signature: P	rint:			Date:	



**IgCC - Schedule of Periodic Commissioning Checklist** - To be Included With Commissioning Plan

\*Appendix A Item

			TABLE 903.1 (COMMISSION	ING PLAN)		
Construction or System Requiring	Pre	Post		Occurrence		Section
Verification	Occupancy	Occupancy	Method	Preoccupancy	Post Occupancy	Reference Standard
			Chapter 4. Site Development	and Land Use		
Natural Resources and Baseline Conditions of Building Site	Х	None	Report	With Permit Submittal	None	*401.2
Landscape Irrigation Systems	х	None	Field Inspection	Installation	None	*404.1, *405.1.1
Topsoil and Vegetation Protection Measures: Setbacks	Х	None	Field Inspection and Report	Install of Measures Prior to Other Site Disturbance	None	*405.1.1
Imported Soils	Х	None	Field Inspection and Report	With Permit Submittal: After All Fill Operations Are Complete	None	*405.1.3
Soil Restoration and Reuse	Х	None	Field Inspection	Preparation and Replacement of Soils	None	*405.1.4
Stormwater Management System Operation	None	Х	Field Inspection		24 Months	*403.1
Erosion and Sediment Control	Х	Х	Field Inspection	During Construction	Periodic for 24 Months	*405.1.1
Hardscape and Shading Provided by Structures and Vegetation	Х	Х	Field Inspection and Report	During Construction and Installation	24 Months	408.2
Vegetative Roofs	Х	Х	Field Inspection and Report	Installation of Protective Membranes, Base Materials, Soils and Vegetation	24 Months	408.3.2
Site Lighting	Х	None	Testing and Report	Installation	None	Zoning and IECC
		Chapte	er 5: Material Resource Conser	vation and Efficiency		
Foundation Sub-Soil Drainage System	х	None	Field Inspection and Verification	Periodic Inspection for Entire Sub-Soil Drainage System	None	507.1 and IBC Ch 18
Foundation Waterproofing	Х	None	Field Inspection and Verification	Periodic Inspection for Entire Foundation	None	507.1 and IBC Ch 18

	Foundation Dampproofing	Х	None	Field Inspection and Verification	Periodic Inspection for Entire Foundation	None	507.1 and IBC Ch 18
	Under Slab Water Vapor Protection	Х	None	Field Inspection and Verification	Periodic Inspection for Entire Slab Footprint	None	507.1, IBC Ch 19 and ASTM E 1643
	Flashing at: Exterior Windows, Doors, Skylights, Wall Flashing and Drainage Systems	Х	None	Field Inspection and Verification	Periodic Inspection of Not Less Than 25% of All Flashing Locations	None	507.1 and IBC Ch 14
	Exterior Wall Coverings	Х	None	Field Inspection and Verification	Periodic Inspection of Not Less Than 25% of Exterior Wall Cladding Systems	None	507.1 and IBC Ch 14
	Roof Coverings, Roof Drainage and Flashings	Х	None	Field Inspection and Verification	Periodic Inspection of Not Less Than 25% of Roof Covering, Roof Drainage and Flashings	None	507.1 and IBC Ch 15
				Chapter 6: Energy	1		
Ene	rgy Consumption, Monitoring, Targeting an	d Reporting	•	1			_
	Monitoring System	Х	None	Inspection and Verification	During Construction and Prior to Occupancy	None	603, 610.5
	Calibration	Х	х	Testing and Review and Evaluation or Test Reports	During Commissioning	Annually	603, 610.5
Мес	chanical Systems Completion - All Buildings						
	Air System Balancing - Provide the Means for System Balancing	X	None	Inspection and Verification	During Construction and Prior to Occupancy	None	611.1.2.1 and Through Reference to IECC
	Hydronic System Balancing - Provide Means for System Balancing	Х	None	Inspection and Verification	During Construction and Prior to Occupancy	None	611.1.2.2 and Through Reference to IECC
	Mechanical System Manuals - Construction Documents to Require O&M Manual	Х	None	Verification of Construction Documents	Plan Review	None	611.1.5.2
	Commissioning Required and Noted in Plans and Specifications	Х	None	Verification of Construction Documents	Plan Review	None	611.1
	Documentation of Required Commissioning Outcomes	х	None	Verification With the Building Owner	Subsequent to Completion of all Commissioning Activities	None	611.1

Preparation and Availability of a Commissioning Plan	Х	None	Verification With the RDPRC or Cx Agent	Between Plan Review and Commissioning Initiation	None	611.1.1
Balance HVAC Systems Both Air and Hydronic	Х	Х	HVAC System Installer/Contractor or Cx Agent	After Installation of HVAC Systems and Prior to Occupancy	TBD	611.1.2
Functional Performance Testing of HVAC Equipment	Х	Х	HVAC System Installer/Contractor or Cx Agent	After Installation of HVAC Systems and Prior to Occupancy	TBD	611.1.3
Functional Performance Testing of HVAC Controls and Control Systems	Х	Х	HVAC System Installer/Contractor or Cx Agent	After Installation of HVAC Systems and Prior to Occupancy	TBD	611.1.3.2
Preparation of Preliminary Cx Report	None	Х	HVAC System Installer/Contractor or Cx Agent	None	Following Cx	611.1.4
Acceptance of HVAC Systems/Equipment Verification Report	None	Х	Building Owner	None	Letter From Owner	611.1.4.1
Preparation and Distribution of Final HVAV System Completion Documentation that Construction	None	Х	RDPRC, Contractor or Cx Agency	None	90 Days After U&O Approval	611.1.5
			Chapter 6: Lightin	g		
Auto Demand Reduction Control System Functionality	Х	х	Functional Testing	Final Inspection	18-24 Months	*604.4
Plug Load Controls	Х	None	Functional Testing	Final Inspection	None	608.6
Specified Transformer Nameplate Efficiency Rating	Х	None	Field Inspection	Final Inspection	None	608.8.1.1
Verification of Lamps	Х	Х	Field Inspection	Final Inspection	18-24 Months	608.10
Verification of Ballasts	Х	None	Field Inspection	Final Inspection	None	608.10
Lighting Controls Installation	Х	None	Field Inspection	Post Installation	None	608.11
Lighting Controls Calibration	Х	Х	System Installer Contractor or Cx Agency	Post Installation	18-24 Months	611.3.3
	Chap	ter 7: Water	Resource Conservation (All in )	Appendix A as Project Electives)		
Appliances	Х	None				*702.6
Hot Water Distribution	Х	None				*702.8
Cooling Tower Performance		Х				*703.7.7
Metering	Х	None				*705.1.1
Rainwater System Water Quality	None	Х	Field Testing and Verification	None	707.15.1	*707.15.2
Gray Water System Water Quality	None	Х	Field Inspection and Verification	None	708.13.8	*708.13.8

	Soil Percolation Test	Х	None	Field Inspection and Report	Prior to Installation of Gray Water Irrigation System	None	*708.14.2		
	•		Cl	napter 8: Indoor Environmental Qu	ality and Comfort				
	Air Handling System Access	X	Х	Field Inspection and Verification	During Construction and Prior to U&O	18-24 Months	802.2		
	Air Handling System Filters	Х	Х	Field Inspection and Verification	During Construction and Prior to U&O	18-24 Months	802.3		
	Temperature and Humidity in Occupied Spaces		Х	Field Inspection and Verification		18-24 Months	803.2		
	Mechanical and Emergency Generator Equipment Located Outside Buildings or Located Where Exposed to Exterior Environment (Sound Transmission)	Х	None	Field Testing and Verification	Section 807.5.1	None	*807.5.1		
	HVAC Background Sound (Transmission)	Х	None	Field Testing and Verification	Section 807.5.2	None	*807.5.2		
	Appendix A: Project Electives								
$\vdash$									
$\vdash$									
$\vdash$	1								

	Signature:	Print:	Date:
--	------------	--------	-------